IN THE SPECIFICATION:

Please replace the paragraph beginning at page 6, line 13, with the following rewritten paragraph:

--Shown in Figure 3 is a simplified example of a typical direct sequence spread spectrum (DSSS) receiver, generally indicated by the numeral **120**. DSSS receiver **120** includes a receiving antenna **122**, a broadband RF amplifier **124**, and a first signal mixer **126**. Signal mixer **126** is adapted to receive an amplified broadband signal from amplifier **124** as well as a signal generated by a local oscillator **128** having a frequency equal to $f_c - f_{IF}$, where f_c is the carrier frequency and f_{IF} is the intermediate frequency. The output signal produced by mixer **126** is then compared at a second mixer **130** to a signal that is generated by a third mixer **132**. The signal generated by mixer **132** is produced using the same spreading code sequence as that used by the corresponding DSSS transmitter **100** shown in Figure 1. This spreading code sequence is generated in much the same manner as described above for transmitter **100**. That is, a PSN generator **134** and associated clock function **136** are used to create the binary spreading code sequence. More particularly, the binary spreading code sequence produced by PSN generator **134** is combined with an IF carrier signal that is produced by an IF oscillator **138**. It will be further appreciated that the signal output by the correlating mixer **130** is used to drive a synchronization circuit **140**, which in turn is responsible for ~~insuring~~ ensuring that the IF carrier signal generated by oscillator **138** is synchronized with carrier oscillator **110** of transmitter **100**. That is, synchronization circuit **140** must reproduce the exact phase and frequency of the signal output from carrier oscillator **110**. Synchronization circuit **140** performs this function, in part, by

cont

altering the frequency of clock source **136** such that the PSN or spreading code chip rate matches that of the incoming modulated broadband signal. Since the spreading code produced by the PSN generator is the same as that contained within the received signal, adjusting the clock in the manner described above will eventually allow the two signals to be brought into a synchronized state.--

Please replace the paragraph beginning at page 20, line 17, with the following rewritten paragraph:

--After the second squaring, the following expression is obtained:

$$U^4(t) = A^2 B^2 \sin^2 (2\omega t + 2\varphi)$$

$$= A^2B^2 (1 - \cos (4\omega t + 4\varphi)) / 2$$

$$= {}^1/_2 - (\cos (4\omega t + 4\varphi)) / 2. \qquad (6)$$--

Please replace the paragraph beginning at page 20, line 21, with the following rewritten paragraph:

--After filtering out the constant component the signal can be represented by the following expression:

$$U^4(t) = - (\cos (4\omega t + 4\varphi)) / 2. \qquad (7)$$--

IN THE DRAWINGS:

Please replace Figures 8, 9, and 11 with the attached replacement drawings.